

DOCKET NO: 214089US0CONT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

YOSHINAO NAGASHIMA, ET AL.

SERIAL NO: 09/972,887

FILED: OCTOBER 10, 2001

FOR: AUTONOMIC NERVE
REGULATING AGENT

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: EXAMINER: TRAVERS, R.

: GROUP ART UNIT: 1617

SUPPLEMENTAL RESPONSE AND REQUEST FOR RECONSIDERATION

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Supplemental to Applicants' Amendment and Request for Reconsideration of January 28, 2004 in response to the Official Action dated July 28, 2003, reconsideration of the above-identified application is respectfully requested in view of the following remarks:

REQUEST FOR RECONSIDERATION

Claims 1-5, 8, 12-14 and 20-44 remain active in this application with claims 1-5, 8, 12-14 and 21-44 being under active consideration.

The present invention is directed to a method of regulating autonomic nerve activity. Stimulation of parasympathetic activity over sympathetic activity is believed to reduce stress and calm aggravated mental states, inducing sleep. Oral and percutaneous administration of active ingredients as well as fragrances have been used to improve sleep induction. Some fragrances have been identified as disagreeable or irritating and accordingly new methods for regulating autonomic nerve activity are sought.

The present invention addresses this problem by providing a method for regulating autonomic nerve activity such as by increasing all ECG R-R interval, or decreasing systolic and/or diastolic blood pressure, by administering by **inhalation**, a terpene alcohol having a boiling point of at least 200°C, and having an odor below a detectable threshold. Applicants have discovered that administration of such terpene alcohols by inhalation is effective for regulating autonomic nerve activity. Such a method is nowhere disclosed or suggested in the cited prior art of record.

Applicants have previously addressed the rejection of claims 1-14 under 35 U.S.C. § 112, second paragraph by amending the method claims to recite the specific function of increasing ECG R-R interval, decreasing systolic blood pressure as well as decreasing diastolic blood pressure. The metes and bounds of the claimed invention are clear in view of Applicants' amendment. Applicants submitted a preprint of Dayawansa et al. from *Autonomic Neuroscience: Basic and Clinical* 477, (2003) which identified the relationship between increasing an ECG R-R interval, decreasing systolic blood pressure, and decreasing diastolic blood pressure with autonomic responses. Applicants also submitted abstracts of Malliani et al. from *Circulation* (1991 Aug) 84 (2) 482-92 and Pagani et al. from *Circulation Research* (1986 Aug) 59 (2) 178-93 which describe relationships between heart rate activity and vagal or sympathetic activity.

Applicants submit herewith copies of Malliani et al. from *Circulation* (1991 Aug) 84 (2) 482-92 and Pagani et al. from *Circulation Research* (1986 Aug) 59 (2) 178-93. In addition Applicants submit herewith a copy of an abstract from Schubert et al. from *Journal of Clinical Anesthesia* (1997 Feb) 9 (1) 52-60, which seeks to define the behavior of power spectral heart rate variability during potentially stressful events in the perioperative period, and related it to changes in blood pressure and heart rate.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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AMENDMENT AND REQUEST FOR RECONSIDERATION

COMMISSIONER FOR PATENTS
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SIR:

Responsive to the Official Action dated July 28, 2003, reconsideration of the above-identified application is respectfully requested in view of the following amendment and remarks:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 8 of this paper.